

**GEORGE MASON UNIVERSITY**  
**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**  
**SCHOOL OF EDUCATION**  
**Educational Psychology**

EDRS 590, Section 002: Educational Research  
3 credits; Fall 2019  
August 26 – December 18, 2019  
Thursday 4:30 p.m.-7:10 p.m. 129 Innovation Hall  
50% Asynchronous Online

**FACULTY**

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**PREREQUISITES/COREQUISITES**

None

**UNIVERSITY CATALOG COURSE DESCRIPTION**

Develops skills, insights, and understanding to perform research, with emphasis on interpreting and applying research results. Critiques research and uses findings in educational settings.

**COURSE OVERVIEW**

This introductory research course examines connections among theoretical frameworks, research questions, methods of data collection, analysis and reporting. The purpose of this course is to introduce an understanding of quantitative, qualitative and mixed methods inquiry. This will involve reading about research. Students will be introduced to the basics of research design, including identifying a problem, conducting a brief literature search, describing data collection and analysis, writing, and ethics. A general intent of the course is to help learners to become better consumers of research, and to understand the ways educational research relates to instructional practice and school improvement.

**COURSE DELIVERY METHOD**

This course will be delivered through face to face and online sessions. Lectures, discussions, and small and large group activities format will be included in this course. This course is structured around readings, reflections on readings, class projects, technology activities, and writing assignments. The instructor will use Blackboard and other web tools to facilitate in-class activities.

## LEARNER OUTCOMES

This course is designed to enable students to do the following:

- Gain critical perspectives in order to understand the validity of education research;
- Use appropriate reference sources to locate publications relevant to a topic of their choice;
- Understand measures of central tendency and dispersion and their application to important education outcomes;
- Develop an informed perspective on issues in education that is grounded in contemporary research;
- Understand how teachers or administrators can use research to enhance instruction and inform practice;
- Use various social science perspectives as the foundation for advocacy and change; and
- Be able to apply technology to the task of conducting education research.

## PROFESSIONAL STANDARDS

Across the many courses in Educational Psychology, a number of standards are addressed. These standards are noted below. Those emphasized most strongly in this course are in bold text.

1. Candidates will demonstrate an understanding of principles and theories of learning, cognition, motivation, and development as they apply to a wide variety of contemporary learning contexts.
2. Candidates will use their knowledge, skills, and dispositions to apply principles and theories of learning, cognition, motivation and development to analyze and develop instruction in applied settings.
3. **Candidates will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational research.**
4. **Candidates will use their knowledge of quantitative and qualitative research methodology to critically read and evaluate quantitative and qualitative research articles.**
5. **Candidates will use their knowledge of quantitative and qualitative research methodology to develop a research proposal and conduct research.**
6. **Candidates will demonstrate critical thinking, oral presentation, technological, and writing skills as they are used in the profession. These include:**
  - **Knowledge and use of APA style**
  - **Oral presentations**
  - **Article abstracts**
  - **Research Proposals**
  - **Literature reviews**
  - **Technological skills (including library/reference skills, interactive displays skills, data analysis skills)**

## REQUIRED TEXT

McMillan, J.H. (2016). *Fundamentals of educational research* (7th ed.). Boston, MA: Pearson Education.

## STRONGLY RECOMMENDED TEXT

American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC.

There is a class Blackboard site that contains course documents, modules for Online class sessions, and relevant links. Students are required to download pertinent documents for class as requested and are required to post all assignments to Blackboard.

## COURSE PERFORMANCE EVALUATION

It is expected that each of you will submit all assignments on time to Blackboard by 4:30PM on the due date. In addition, students should:

- Read all assigned materials for the course.
- Attend each face-to-face and online class session and participate in-classroom activities that reflect critical reading of materials.
- Complete class assignments and exam as outlined below.
- Complete in-class and Online assignments and activities.
- Critique and/or discuss assigned readings in-class or on Discussion Board.
- Complete the online Mandatory Training for Persons Conducting Research with Human Subjects.
- Remember when using cell phones, laptops, etc., be respectful and do not engage in activities that are unrelated to class. Such disruptions will affect your participation grade.

\*Late assignments must be discussed with the instructor. As a general rule, late assignments will not be accepted. If you believe you have EXCEPTIONAL circumstances and wish to negotiate to have extra time to complete coursework, you must discuss this with me before the day the assignment is due. (Negotiating means you will be sacrificing a portion, perhaps substantial, of your grade for extra time). If an emergency occurs, please notify the instructor as soon as possible.

## ASSIGNMENTS AND EXAMINATION

**1. Human Subjects Online Ethics Training (10 points):** Students will be asked to complete Mandatory Training for Persons Conducting Research Using Human Subjects. Information is available online: <http://research.gmu.edu/ORSP/HumanTraining.html>

The training takes between two and five hours and can be accessed from: <http://www.citiprogram.org>. Copy and paste your completion certificate into a word document or save as a PDF, then upload a copy of the certificate file to Blackboard.

**2. Exam (15 points):** One exam will cover the material from the class and textbook and include multiple choice as well as short answer questions.

**3. Critique of Two Empirical Research Articles (5 points each):** Students will write a

critique of one quantitative intervention study and one qualitative study obtained from a peer-reviewed journal. The critiques should include the following parts: purpose, methods, results, and critical comments as well as your reflections about the article (see Blackboard site for specific instructions).

**4. Research Proposal (35 points):** Students will write a proposal in APA style for a research project focusing on an educational topic of interest. Students should utilize a methodological approach that most appropriately addresses their research question(s). See pp. 41-59 of the APA manual for an example of an APA style paper. Place electronic versions in the relevant assignment box on the Blackboard site. The proposal should include:

1. Literature review to orient the reader to your topic and theoretical framework.
2. Statement of purpose and research questions, including a statement indicating research you are replicating or extending and relevant citations.
3. Method (5-6 pages)
  - Participants and setting
  - Materials
  - Data sources (dependent variables); instrumentation (where relevant)
  - Research design
  - Procedures (proposed data collection process)
  - Proposed preliminary data analyses (bonus section)
4. References

**5. Research Power Point Session (10 points):** Students' research proposals will be presented in a virtual poster session. Place a copy of the slides on Blackboard.

**6. In-class Assignments, Participation, and Attendance Policy (20 points):** Students will be asked to work individually or in groups of 2-3 students for in-class and online assignments throughout the semester (see assignments on Blackboard). Because of the importance of lecture, discussion, and engagement with course material to your total learning experience, I encourage you to both attend and participate in face-to-face and online class sessions regularly. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential. These elements will reflect the professional attitude implied in the course goals and will account for 20% of your course grade. With reference to the grading scale described later in this syllabus, you will note that this percentage is equivalent to two full letter grades. Students who must miss a class must notify the instructor in advance to earn full points.

Participation in the Discussion Board for online classes is critical and dependent on all students participating timely. Your original post for the discussion board should be completed by 4:30PM Thursday, the day of the online class. Your response to at least three different peers must be completed by 4:30PM Monday, the following week. Your response to those who have responded to your original post must be completed by 4:30PM Thursday, the following week. No points can be earned for a missed or late Discussion Board initial posting or for late responses (see Blackboard for more information).

## Course Evaluation

### **RUBRIC FOR HUMAN SUBJECT ONLINE TRAINING**

**Pass (10 points):** Successful completion of online BASIC and other relevant components of training on time.

**No Pass (0 - 6 points):** Unsuccessful completion of online BASIC and other relevant components or late in completing assignment.

### **RUBRIC FOR EVALUATION OF EMPRICAL RESEARCH ARTICLES**

**Adequate evaluation (5 points):** Evaluation is thorough, thoughtful, correctly done, and submitted on time.

**Marginal evaluation (2.5 points):** Evaluation is carelessly prepared, not thoughtful, or incomplete.

**Inadequate evaluation (0 points):** Evaluation is poorly done and/or is not submitted on time.

### **RUBRIC FOR RESEARCH PROPOSAL**

**Exemplary paper (31-35 points):** Appropriate topic, thorough and thoughtful purpose and research questions. Appropriate and clearly described research design, participants, materials, data sources, implementation procedures, and careful brief description of data analyses. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

**Adequate paper (26-31 points):** Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style or APA format errors may be present.

**Marginal paper (22-26 points):** Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style or APA format, or unclear or inappropriate description of implementation of project.

**Inadequate paper (1-22 points):** Paper with substantial problems in important areas such as writing, proposed implementation of intervention, procedures for evaluation of results, or overall thoughtfulness. Contains little or no information of value to field of education.

**Unacceptable/no paper (0 points):** Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

## RUBRIC FOR POWER POINT PRESENTATION

**Exemplary presentation (10 points):** Keeps within the time limits; reflects poise, clarity, knowledge and interest in the content being presented; reflects a high level of preparation; make effective use of overheads, handouts, demonstrations; describes very clearly the treatment(s) under consideration; keeps the audience engaged; provides information of interest and value to audience.

**Adequate presentation (8-9 points):** Good overall presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some place, or may fail to completely engage the audience.

**Marginal presentation (6-7 points):** Presentation provides relevant information, but demonstrates only a limited understanding of the topic or project. Style or visual aids may be less than inadequate.

**Inadequate presentation (1-5 points):** Weak overall presentation that reflects very little knowledge of topic or project. May appear very poorly prepared, or may not have followed directions. Visual aids may be inadequate or lacking.

**Unacceptable/no presentation (0 points):** Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

## RUBRIC FOR IN-CLASS AND ONLINE ASSIGNMENTS, DISCUSSION BOARD, AND CLASS PARTICIPATION (2 points for each class as indicated in schedule)

**Exemplary (2 points):** The student actively participates and supports the members of the learning group and the members of the class. The student completes assignments as outlined with a high level of accuracy (see Blackboard for each assignment).

**Adequate (1.5 points):** The student is prepared and participates in group and class and online discussions. The student completes assignments as outlined with a good of accuracy (see Blackboard for each assignment).

**Marginal (1 points):** The student is prepared, but participates is limited. The student completes assignments as outlined but misses one or two key elements for the assignment (see Blackboard for each assignment).

**Inadequate (.5 or less points):** The student is unprepared for class and does not actively participate in discussions. The student submits incomplete or no assignment. **Excessive missed assignments can result in additional penalties and potential withdrawal from class.**

## **Grading Policy**

|   |                           |
|---|---------------------------|
| Human Subjects Online Training  | 10 pts                    |
| Evaluation of Empirical Research Article (2)                            | 10 pts total (5 pts each) |
| Exam  | 15 pts                    |
| Research Proposal   | 35 pts total              |
| Research Power Point Presentation                                       | 10 pts                    |
| In-Class/Online Assignments and In-Class Participation/Discussion Board | 20 pts (2 pts per class)  |
| <b>TOTAL</b>  | <b>100 pts</b>            |

**Letter grades will be assigned as follows:**

|    |           |    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|----|-----------|
| A+ | 98-100%   | A  | 93-97.49% | A- | 90-92.49% | B+ | 88-89.49% |
| B  | 83-87.49% | B- | 80-82.49% | C  | 70-79.49% | F  | below 70% |

## **PROFESSIONAL DISPOSITIONS**

See <https://cehd.gmu.edu/students/policies-procedures/>

## **CORE VALUES COMMITMENT**

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

## **GMU POLICIES AND RESOURCES FOR STUDENTS**

### *Policies*

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/> ).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.

- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <https://ds.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

### *Campus Resources*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

**For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .**

**Tentative Course Organization and Schedule: Instructor May Modify Schedule as Needed**

| DATE                 | TOPIC  | ASSIGNED READING DUE                          | WORK DUE  |
|----------------------|--|---|---|
| 8/29<br>In-Class #1  | *Review syllabus-Introduction to the Field of Educational Research                       |   |   |
| 9/5<br>In-Class #2   | *Introduction to Research in Education<br>*Research Problems and Questions               | Chapters 1 & 3                                | In-class Activity & Participation   |
| 9/12<br>Online #1    | *Ethical issues, Principles, and Practices<br>*Locating and Reviewing Related Literature | Chapters 2 & 4                                | Literature Scavenger Hunt Activity & Discussion Board   |
| 9/19<br>In-Class #3  | *Participants and Sampling<br>*Foundations of Educational Measurement                    | Chapters 5 & 6                                | In-class Activity & Participation   |
| 9/26<br>Online #2    | *Quantitative Data Collection Techniques<br>*APA Style of Writing/Content                | Chapter 7<br><br>Chapters 1 & 2 in APA Manual | <b>CITI Training Due</b><br>Online Activity & Discussion Board  |
| 10/3<br>Online #3    | *Understanding Statistical Inferences  | Chapters 10                                   | Online Activity: <b>Draft of Introduction Section and Research Questions (WIKI)</b><br>Due 4:30PM 10/3<br><br>Feedback & Discussion Board<br>Due 11:59PM 10/9 |
| 10/10<br>In-Class #4 | *Non-experimental Quantitative Research Designs<br>*Experimental Research Designs        | Chapter 8 & 9                                 | In-class Activity & Participation   |
| 10/17<br>In-Class #5 | *Qualitative Research Design   | Chapter 11                                    | <b>Article Critique Due (Quantitative)</b><br>In-class Activity & Participation   |

|                      |  |   |  |
|----------------------|--|---|--|
| 10/24<br>Online #4   | *Qualitative Data Collection,<br>Analysis, and Credibility   | Chapter 12  | <b>Article Critique Due (Qualitative)</b><br>Online Activity &<br>Discussion Board   |
| 10/31<br>Online #5   | <b>EXAM</b>  |   |  |
| 11/7<br>In-Class #6  | *Mixed Methods   | Chapter 13  | In-class Activity &<br>Participation   |
| 11/14<br>Online #6   | *Action Research   | Chapter 14  | Online Activity: <b>Draft of Methods Section (WIKI)</b><br>Due 4:30PM 11/14<br><br>Feedback & Discussion<br>Board<br>Due 11:59PM 11/20       |
| 11/21<br>In-Class #7 | *Discussion and Conclusions  | Chapter 15<br>Reflections and<br>Future<br>Directions | Online Activity: <b>Draft of Full Research Proposal (WIKI)</b><br>Due 4:30PM 11/21<br><br>Feedback & Discussion<br>Board<br>Due 11:59PM 12/4 |
| 11/28                | <br><b>Thanksgiving</b> |   |  |
| 12/5<br>Online #7    | Power Point Presentations<br>*Individual appointments  |   | <b>Power Point Presentation Due</b>  |
| 12/12                |  |   | <b>Research Proposal Due – Submit in Blackboard Assignments</b>  |